Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

Claim 1 (currently amended): A molecular rotary motor comprising:

a first ~~two-dimensional~~ array of a first motor ~~protein~~ molecule; and

a second ~~two-dimensional~~ array of a second motor ~~protein that interacts with the first motor protein to move directionally relatively to the first array; and~~ molecule,

wherein the first and second arrays ~~of motor proteins~~ are in sufficiently close contact to interact and ~~move~~ rotate the second array relative to the first array.

Claim 2 (currently amended): The molecular motor of claim 1, further comprising a driven member ~~moved~~ rotated by the ~~directional movement of the~~ interaction between the first array and the second array.

Claim 3 (withdrawn – currently amended): The molecular motor of claim 1, ~~further comprising~~ wherein the first array and the second array comprise multiple nested ~~first and second~~ arrays that interact with one another to ~~directionally move the first and second arrays~~ rotate relative to one another.

Claim 4 (withdrawn – currently amended): The molecular motor of claim 1, wherein ~~each two-dimensional~~ the first array is disposed on a first curved surface and the second array is disposed on a second curved surface.

Claim 5 (withdrawn – currently amended): The molecular motor of claim 4, wherein ~~each~~ the first and second curved ~~surface is a~~ surfaces are continuous curved ~~surface~~ surfaces.

Claim 6 (withdrawn – currently amended): The molecular motor of claim 5, wherein ~~each~~ the first and second curved ~~surface is a~~ surfaces are complementary shaped cylindrical or conical ~~surface~~ surfaces.

Claim 7 (withdrawn – currently amended): The molecular motor of claim 6, further comprising a ~~plurality of~~ first nested ~~cylindrical or conical members, the~~ member and a second nested member, wherein the first and second curved surfaces ~~thereof forming the~~ are complementary curved surfaces of the first and second nested members.

Claim 8 (currently amended): The molecular motor of claim 1, wherein the first motor ~~protein~~ molecule is ~~actin~~ myosin and the second motor ~~protein~~ molecule is ~~myosin~~ actin.

Claim 9 (original): The molecular motor of claim 1, further comprising a source of ATP.

Claim 10 (currently amended): The molecular motor of claim 1, ~~further comprising perforations in surfaces on which the arrays are disposed,~~ wherein the first array is disposed on a first surface, the second array is disposed on a second surface, and the first and second surfaces comprise perforations to allow permeation of ~~an ATP containing~~ a liquid ~~through the surfaces~~ fuel source to the motor ~~proteins~~ molecules.

Claim 11 (withdrawn): The molecular motor of claim 1, wherein the first array is coated on a first curved surface, and the second array is coated on a second curved surface.

Claim 12 (withdrawn – currently amended): The molecular motor of claim [[10]] 1, wherein one of the arrays is coated on an outer surface of a cylinder, shaft or cone, and another of the arrays is coated on an inner surface of a surrounding structure having a complementary shape that substantially conforms to a shape of the outer surface of the cylinder, shaft or cone.

Claim 13 (currently amended): The molecular motor of claim 1, wherein ~~directional movement of~~ the interaction between the first array and the second array ~~moves~~ rotates a driver.

Claim 14 (withdrawn): The molecular motor of claim 13, wherein the driver is an internal shaft or cylinder in the motor.

Claim 15 (withdrawn): The molecular motor of claim 13, wherein the driver is an outer curved surface of the motor.

Claim 16 (currently amended): A motor comprising:

a first array of a first motor molecule;

a second array of a second motor molecule that interacts with the first motor molecule to move directionally relative to the first array; and

a driven member moved by the directional movement of the second array,

wherein the first and second arrays of motor molecules are in sufficiently close contact to interact and move the second array relative to the first array, and

~~The molecular motor of claim 2,~~ wherein the driven member is a rotating shaft, a propeller, a wheel, a lever-arm, a gear system, or a pulley system.

Claim 17 (currently amended): The molecular motor of claim 1, wherein predetermined dimensions of the first and second arrays ~~are of a preselected dimension that provides a preselected~~ determine a power output of the motor.

Claim 18 (currently amended): The molecular motor of claim 17, wherein the ~~preselected dimesion is a length~~ predetermined dimensions are lengths of the ~~array~~ first and second arrays.

Claim 19 (withdrawn – currently amended): The molecular motor of claim 3, wherein a ~~preselected~~ predetermined number of ~~multiple~~ nested arrays are provided to select a speed of rotation of the motor.

Claims 20-39 (canceled)

Claim 40 (currently amended): The molecular motor of claim 1, further comprising[[:]] a supply of a fuel source, wherein the supply of the fuel source is used to activate ~~movement~~ rotation of the second array relative to the first array.

Claim 41 (original): The molecular motor of claim 40, wherein the supply of the fuel source is a regulated supply of the fuel source.

Claim 42 (original): The molecular motor of claim 41, wherein the regulated supply of the fuel source is regulated by a switch or a valve.

Claim 43 (original): The molecular motor of claim 40, wherein the fuel source is ATP.

Claim 44 (currently amended): [[A]] The molecular motor of claim 1 ~~comprising:~~

~~a first two-dimensional array of a first motor protein; and~~

~~a second two-dimensional array of a second motor protein that interacts with the first motor protein to move directionally relatively to the first array;~~

~~wherein the first and second arrays of motor proteins are in sufficiently close contact to interact and move the second array relative to the first array; and~~

wherein at least one of the first or second array of motor ~~protein~~ molecules is applied directionally on a surface ~~on which the array is disposed~~.

Claim 45 (currently amended): The molecular motor of claim 44, wherein the first motor ~~protein~~ molecule is myosin and the second motor ~~protein~~ molecule is actin and the actin is applied directionally to the surface.

Claims 46-53 (canceled)

Claim 54 (currently amended): A molecular motor comprising:

a first ~~two-dimensional~~ array of a first motor ~~protein~~ molecule disposed on a first surface;

a second ~~two-dimensional~~ array of a second motor ~~protein that~~ molecule disposed on a second surface, wherein the second motor molecule interacts with the first motor ~~protein~~ molecule to move directionally relatively to the first ~~array~~ motor molecule; and

at least one perforation in ~~at least one surface on which at least one of the arrays are disposed,~~ the first or second surface to allow permeation of ~~an ATP containing~~ a liquid fuel source through the surface to the motor ~~proteins;~~ molecules,

wherein the first and second arrays of motor ~~proteins~~ molecules are in sufficiently close contact to interact and move the second array relative to the first array.

Claim 55 (currently amended): The molecular motor of claim 54, wherein the first motor ~~protein~~ molecule is myosin and the second motor ~~protein~~ molecule is actin and the actin is applied directionally to the second surface.

Claim 56 (currently amended): The molecular motor of claim 1, wherein the first motor ~~protein~~ molecule is myosin and the second motor ~~protein~~ molecule is actin and the actin is applied directionally to ~~the~~ a surface.

Claims 57-58 (canceled)

Claim 59 (withdrawn): The molecular motor of claim 1, wherein the first array is coated on a planar surface of a first annular substrate and the second array is coated on a planar surface of a second annular substrate.

Claim 60 (withdrawn): The molecular motor of claim 59, wherein the coated planar surface of the first annular substrate is adjacent to the coated planar surface of the second annular substrate.

Claim 61 (withdrawn – currently amended): The molecular motor of claim 59, further comprising a driver coupled to the second annular substrate and wherein ~~directional~~ rotational movement of the second array ~~moves~~ rotates the driver.

Claim 62 (withdrawn): The molecular motor of claim 44, wherein the surface comprises at least one planar surface of an annular substrate.

Claim 63 (withdrawn – currently amended): The molecular motor of claim 54, wherein the first or second surface comprises at least one planar surface of an annular substrate.

Claims 64-79 (cancelled)

Claim 80 (withdrawn): The molecular motor of claim 1, wherein at least one of the arrays is coated on a continuous loop of a flexible substrate.

Claim 81 (withdrawn – currently amended): The molecular motor of claim 80, wherein the continuous loop ~~moves~~ rotates along an elongated cylindrical, oblong, elliptical, or serpentine path.

Claim 82 (canceled)

Claim 83 (new): A motor comprising:

a first array of a first motor molecule disposed on a surface of a cylinder, shaft or cone;

a second array of a second motor molecule disposed on a second surface,

wherein the first and second arrays are in sufficiently close contact to interact and move the second surface relative to the surface of the cylinder, shaft or cone, or to interact and move the surface of the cylinder, shaft or cone relative to the second surface.

Claim 84 (new): The motor of claim 83, wherein the first array of the first motor molecule is disposed on the surface of a cylinder.

Claim 85 (new): The motor of claim 84, wherein the second surface is a curved surface complementary to the surface of the cylinder.

Claim 86 (new): The motor of claim 83, further comprising a driven member moved by the directional movement of the second surface or the surface of the cylinder, shaft or cone.

Claim 87 (new): The motor of claim 83, wherein the first and second motor molecules are proteins.

Claim 88 (new): The motor of claim 83, wherein the first motor molecule is myosin and the second motor molecule is actin.

Claim 89 (new): The motor of claim 83, wherein the first motor molecule is kinesin and the second motor molecule is a microtubule.

Claim 90 (new): The motor of claim 83, wherein the second surface is a curved surface complementary to the surface of the cylinder, shaft or cone.

Claim 91 (new): The molecular motor of claim 1, wherein at least one of the first array or the second array is disposed on a surface of a cylinder, shaft or cone.

Claim 92 (new): The molecular motor of claim 1, wherein at least one of the first array or the second array is disposed on a surface of a cylinder, shaft or cone.

Claim 93 (new): The molecular motor of claim 1, wherein the second array is configured to rotate through at least one complete rotation relative to the first array.

Claim 94 (new): The molecular motor of claim 1, wherein the first and second motor molecules are proteins.

Claim 95 (new): The molecular motor of claim 1, wherein the first motor molecule is kinesin and the second motor molecule is a microtubule.

Claim 96 (new): The molecular motor of claim 1, wherein the first motor molecule is kinesin and the second motor molecule is a microtubule and the second motor molecule is applied directionally to a surface.

Claim 97 (new): The molecular motor of claim 44, wherein the first and second motor molecules are proteins.

Claim 98 (new): The molecular motor of claim 44, wherein the first motor molecule is kinesin and the second motor molecule is a microtubule and the second motor molecule is applied directionally to the surface.

Claim 99 (new): The molecular motor of claim 54, wherein at least one of the first surface or the second surface is a surface of a cylinder, cone or shaft.

Claim 100 (new): The molecular motor of claim 54, wherein at least one of the first surface or the second surface is a surface of a cylinder.

Claim 101 (new): The molecular motor of claim 54, wherein the first and second motor molecules are proteins.

Claim 102 (new): The molecular motor of claim 54, wherein the first motor molecule is kinesin and the second motor molecule is a microtubule and the second motor molecule is applied directionally to the second surface.

Claim 103 (new): The molecular motor of claim 54, wherein the second array and the second surface are configured to rotate relative to the first array and the first surface.